

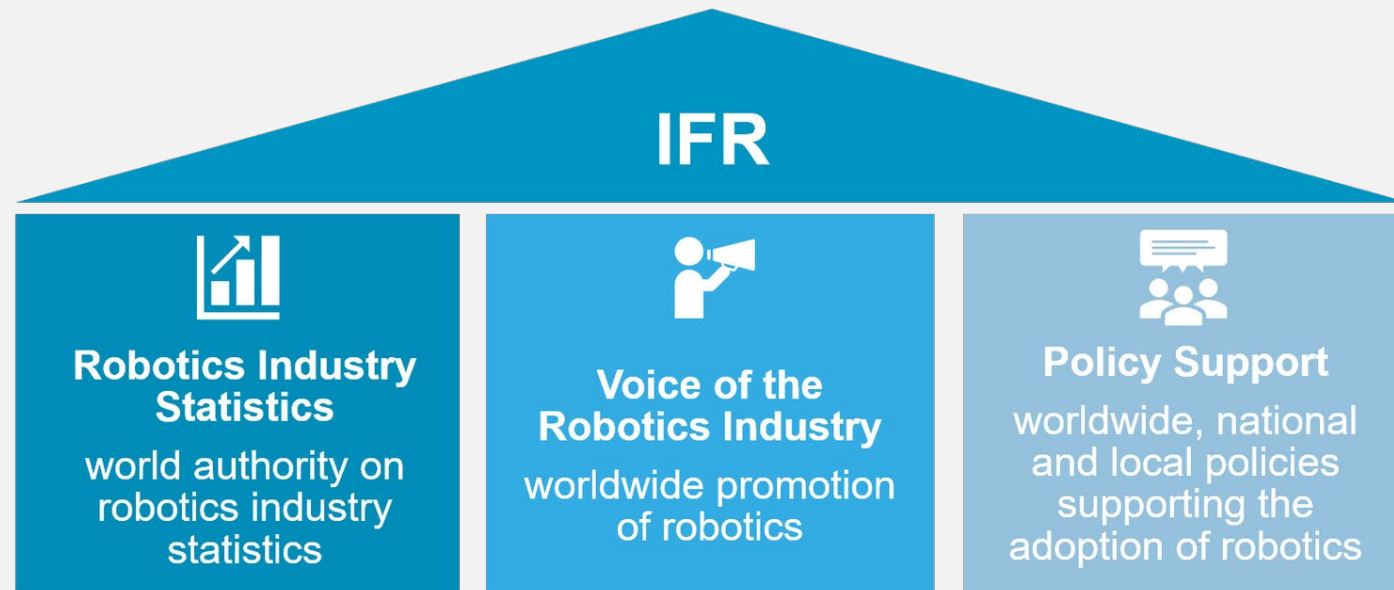
IFR Executive Roundtable on 7 June 2022

How Robotics and Automation Are Transforming the North American Economy



International Federation of Robotics

- **Non-profit organization** since 1987
- IFR represent **more than 2,000 organizations** from **25 countries**
- Robot manufacturers, national robotics associations, universities, start-ups worldwide
- Annual global **robotics turnover \$50 billion** (robot systems including software & peripherals)



IFR statistics and World Robotics

- Numbers presented here are **preliminary**
- Final results will be published in World Robotics 2022
 - Available October 2022



Global installations 2021: 486,785 units (+27%)

Annual installations of industrial robots - World

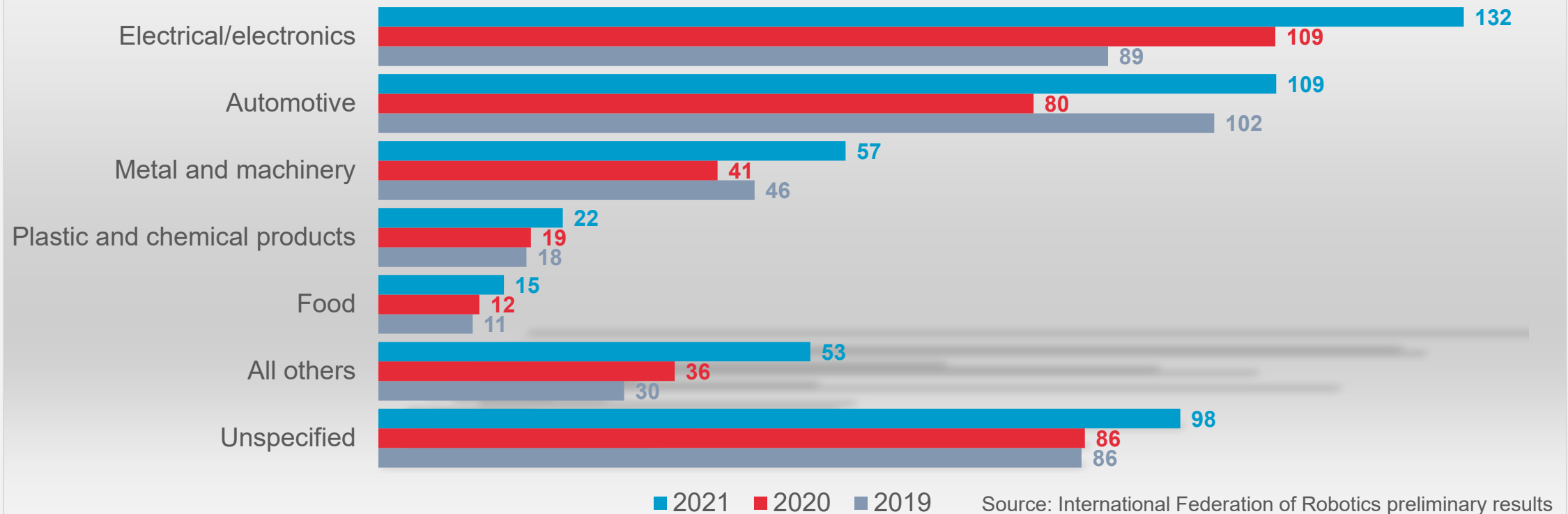
1,000 units



Source: International Federation of Robotics - preliminary results 2021

Electronics largest customer

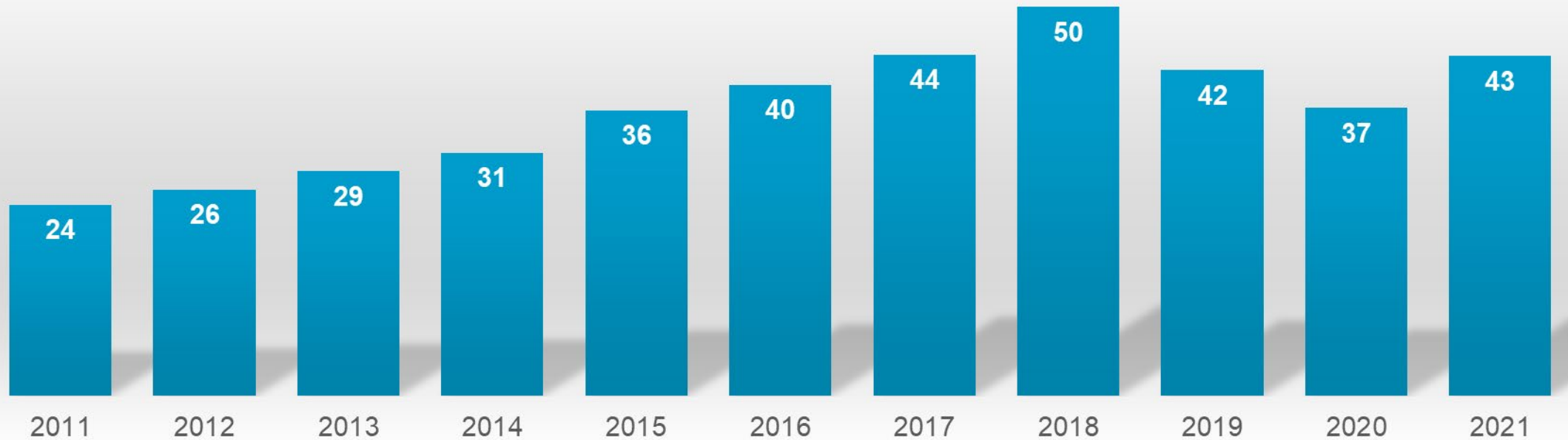
Annual installations of industrial robots by customer industry - World
1,000 units



North America exceeding pre-pandemic level

Annual installations of industrial robots - North America

1,000 units

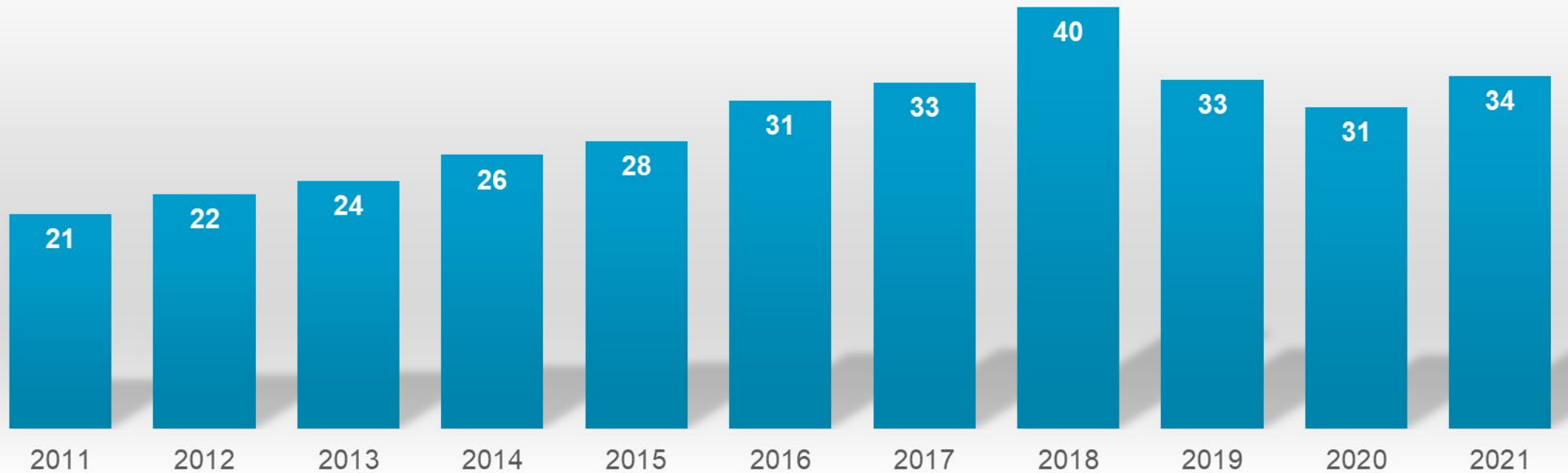


Source: International Federation of Robotics - preliminary results 2021

US installations at +10%

Annual installations of industrial robots - United States

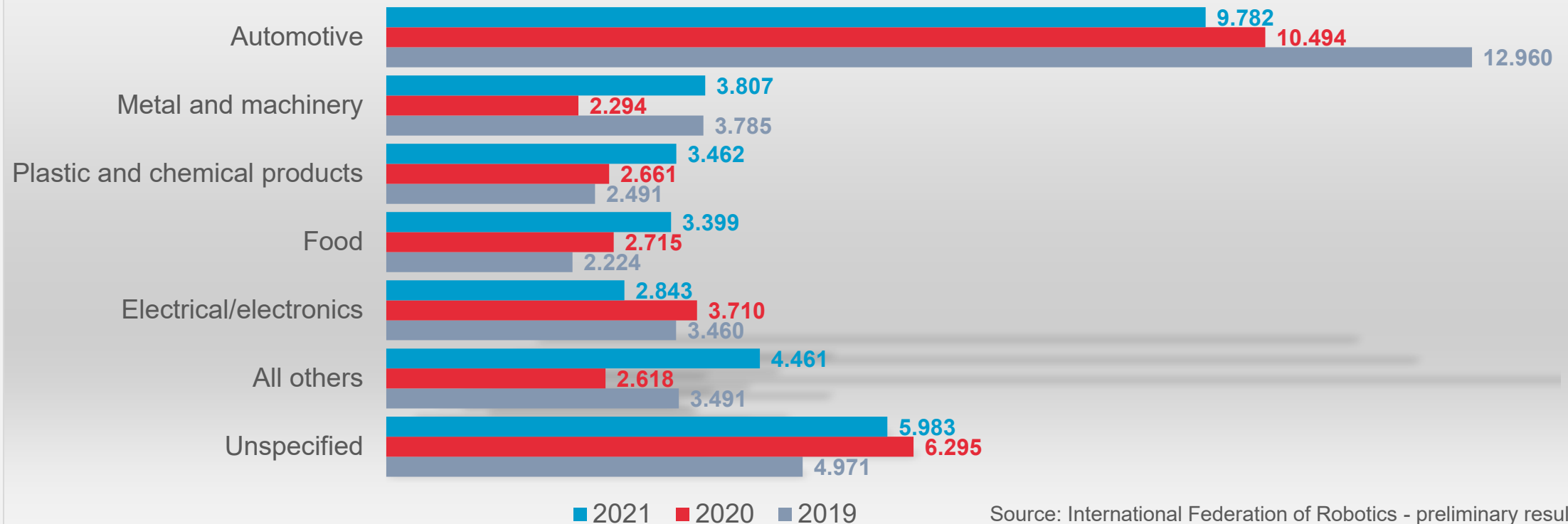
1,000 units



Source: International Federation of Robotics - preliminary results

General Industry in the US robotizes

Annual installations of industrial robots by customer industry - United States
units



New record in Canada

Annual installations of industrial robots - Canada
units



Source: International Federation of Robotics - preliminary results 2021

Rebound in Mexico

Annual installations of industrial robots - Mexico

units



Source: International Federation of Robotics - preliminary results 2021

Outlook: North America prospering

- Orders and turnover are growing strongly
- Global headwinds
 - China's covid policy interferes with global supply chains
 - Russian invasion in Ukraine and its consequences for Europe are burdening North American economies, too
- Big quit & lack of staff are driving automation
- Diversification of customers continues
 - Robotics beyond automotive